Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:
AFSC/RACE/SAP/Shavey: DNA extraction from archived Giemsa-stained blood smears using polymerase chain reaction to detect host and parasitic DNA

1.2. Summary description of the data:
These are the data from a laboratory experiment in which DNA content was removed from blood smears and extracted. The blood smears were either stained with Giemsa-stain or remained un-stained. Some of the un-stained smears were coverslipped. Host and parasitic DNA was amplified using conventional PCR.

1.3. Is this a one-time data collection, or an ongoing series of measurements?
One-time data collection

1.4. Actual or planned temporal coverage of the data:
1988 to 2004

1.5. Actual or planned geographic coverage of the data:
W: -178.51, E: -53.11, N: 61.67, S: 49.63
Eastern Bering Sea, Alaska; Gulf of Alaska; Southeast Alaska, Washington State Coast, North Atlantic Coast

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
Table (digital)

1.7. Data collection method(s):
(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)
Instrument: n/a
Platform: n/a
Physical Collection / Fishing Gear: n/a

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
Metadata Coordinators MC

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:
AFSC.metadata@noaa.gov

2.5. Phone number:

3. Responsible Party for Data Management
Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:
Christie Lang

3.2. Title:
Data Steward

4. Resources
Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?
No

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):
Unknown

5. Data Lineage and Quality
NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible
(describe or provide URL of description):
Process Steps:

- A subset of 76 blood smears that were prepared in the field from 1988 to 2004 were chosen based on smear preparation (Giemsa-stained vs. no stain and coverslipped vs no coverslip) and parasite status (parasite presence vs. no parasite). All content was removed from each smear using a pipette tip and sterile blade. DNA was extracted and amplified using crab host and parasite PCR primer sets.
- SPNO is a number assigned to each collected crab. Duplicate numbers represent replicate smears taken from sample.   The sex of the crab is identified as: 1) Male, 2) Female, 3) Unknown. Individual crab carapaces were measured (1 mm), excluding spines, and are reported as size. Null or blank fields in data represent no size information reported for crab specimen.   Shell condition class serves as a semi-quantitative index of molt status and time in shell post-molt. Carapace shell condition was assessed for each Chionoecetes crab sampled and assigned to one of six classes according to specific criteria (0 = premolt or molting, 1 = soft and pliable, 2 = new hardshell both firm and clean, 3 = oldshell slightly worn, 4 = oldshell worn, 9 = no shell condition information reported for crab specimen). Collection location was not a factor, so only general location is listed.
- Blood smears analyzed were either unstained (none), or fixed with methanol and Giemsa-stained for 30 minutes (Giemsa). Treatment of blood smears are identified as (0 = no cover slip, 1 = cover slip attached using mounting media).   30 fields at 250X were read to determine presence or absence of Hematodinium spp. parasite on blood smear. Results were documented as: (0 = Hematodinium parasite absent on smear, 1 = Hematodinium parasite present on smear). Hematodinium parasite presence on smear was identified as T-rating (0 = No rating due to parasite absence, T1 = Up to 10% Hematodinium parasite present on smear (trophont stage), T2 = 10 - 40% Hematodinium parasite present on smear (trophont stage), T3 = 40 - 60% Hematodinium parasite present on smear (trophont stage), T4 = 60 - 90% Hematodinium parasite present on smear (trophont stage), T4P1 = 60 - 90% Hematodinium parasite present on smear (trophont stage) and up to 10% Hematodium prespore stage, T5 = Above 90% Hematodinium parasite present on smear (trophont stage), T5P1 = Above 90% Hematodinium parasite present on smear (trophont stage) and up to 10% Hematodium prespore stage).
- PCR assays: for 16S, COI, 18S and ITS Primer (0 = Did not use primer set on this sample, 1 = Used primer set on this sample). For 16S, COI, 18S and ITS Amplification (0 = No DNA amplification using this primer set, 1 = DNA was amplified using primer set, 9 = no amplification to report due to primer set not used in sample). Primer set descriptions: 16S = 16Sar-L (CgC CTg TTT ATC AAA AAC AT) & 16Sbr-H (CCg gTC TgA ACT CAg ATC ACg T) primer set used in PCR assay, targeting mitochondrial DNA 16S ribosomal RNA gene. COI = LCO1490 (ggT CAA CAA ATC ATA AAg ATA TTg g) & HCO2198 (TAA ACT TCA ggg TgA CCA AAA AAT CA) primer set used in PCR assay, targeting the mitochondrial cytochrome c oxidase subunit I gene. 18S = HF1487 (CCT ggC TCg ATA gAg TTg) & HR1654 (ggC TgC CgT CCg AAT TAT TCA C) primer set used in PCR assay, targeting the 18S ribosomal gene located at the small subunit 3'-end of the ribosomal RNA unit. ITS = HSP7f (AGT CAT CAG CTC GTG CTG A) & HSP9r (TTC ACG GAA TTC TGC AAT TCG) primer set used in PCR

assay, targeting the first internal transcribed spacer of the ribosomal RNA unit. Statistical analysis: Blood smears were analyzed using two-sample t-test (0 = smear was not used in statistical analysis, 1 = smear was used in statistical analysis).

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):
Data is checked for values outside range.

6. Data Documentation
The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?
No

6.1.1. If metadata are non-existent or non-compliant, please explain:
Missing/invalid information:
- 7.2. Name of organization of facility providing data access

6.2. Name of organization or facility providing metadata hosting:
NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:
https://www.fisheries.noaa.gov/inport/item/35937

6.4. Process for producing and maintaining metadata
(describe or provide URL of description):
Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access
NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?
No

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?
No

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:
There are no legal restrictions on access to the data. They reside in public domain and can be freely distributed.

7.2. Name of organization of facility providing data access:

7.2.1. If data hosting service is needed, please indicate:
Yes

7.2.2. URL of data access service, if known:
https://noaa-fisheries-afsc.data.socrata.com/Species/AFSC-RACE-SAP-Shavey-DNA-extraction-from-ar

7.3. Data access methods or services offered:
unknown

7.4. Approximate delay between data collection and dissemination:
no delay

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection
The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:
(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)
NCEI_MD

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):
Alaska Fisheries Science Center - Seattle, WA

8.3. Approximate delay between data collection and submission to an archive facility:

unknown

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?
Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

> IT Security and Contingency Plan for the system establishes procedures and applies to the functions, operations, and resources necessary to recover and restore data as hosted in the Western Regional Support Center in Seattle, Washington, following a disruption.

9. Additional Line Office or Staff Office Questions
Line and Staff Offices may extend this template by inserting additional questions in this section.